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University of Louisville

College of Arts and Sciences

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UNIVERSITY OF ILLINOIS

PRESIDENT'S OFFICE

University of Louisville

College of Arts and Sciences

FOUNDED IN 1837

JOHN P. MORTON & COMPANY
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Louisville, Kentucky
1912

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Address all communications to

JOHN PATTERSON, A. M., LITT. M., LL. D.
Dean University of Louisville,
Academic Department,
119 WEST BROADWAY.

The University does not offer any courses in studies preparatory for college. There are many good secondary schools in Louisville, and three good public high schools, in any of which students may receive adequate preparation. Classes *for beginners* in the ancient and modern languages are organized in the college, however, for the benefit of those who may wish *after matriculation* to enter upon the study of these languages, *but these courses do not count for honors.* Undergraduate and graduate courses are offered in sixteen departments during the present year.

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Assistant Professor of Chemistry.

Edna Dolfinger,
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Andrew P. Dustin, A. B.,
Instructor in Latin.

Charles W. Jefferson, Jr., M. D.,
Instructor in Biology.

B. M. Brigman, S. M.,
Instructor in Drawing.

J. Howard Müller, S. B.,
Instructor in Chemistry.

C. O. Zahner, M. D.,
Assistant in Physiology.

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The Trustees are the ultimate source of authority in all matters pertaining to the University.

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HISTORY

of the

University of Louisville

By John Patterson, A. M., Litt. M., LL. D.
Dean of Academic Department
University of Louisville

The University of Louisville was founded in 1837 by a decree of the City Council, and the tract of land comprising the town block between Eighth and Ninth Streets, extending south from Chestnut, was granted to the corporation chartered by an act of the Legislature of Kentucky "for the establishment of a university for the promotion of every branch of science, literature, and the liberal arts." A special subsidy of $50,000 was also allowed for the construction of suitable buildings. This enactment of the civic government speaks well for the intelligence and forethought of Louisville when it was nothing more than a village, and these facts, indicating the provision and solicitude of their grandfathers for the cultivation of higher learning and purer citizenship, are worth recalling to their descendants.

Soon after the appropriation made by the City Council for a university, the Medical College and the Law College were put in active operation. The Medical College of the University of Louisville is thus the second oldest medical school now in existence west of the Alleghanies. By the recent coalition of the medical schools of Louisville, embracing the Medical Department of the University of Louisville, organized in 1837, the Kentucky School of Medicine, 1850, the Louisville Medical College, 1869, the Hospital College of Medicine, 1873, and the Medical Department of the Kentucky University (now Transylvania University), 1898, new property, greater prestige, and wider influence were added to the old institution, thus making it one of the strongest of its class in the country, and promising for the future the maintenance of increasingly higher standards to satisfy the increasing requirements demanded by the State medical boards. The additions that have also been made to the laboratories and clinical facilities of this department make it one of credit to the city and of distinct usefulness to the State and country.

20,000 Graduates

The five schools of combined medicine have graduated altogether in the past more than 20,000 alumni. Dr. J. M. Bodine is the President of the Medical Faculty; Dr. J. B. Marvin, Vice-President; Dr. W. Ed Grant, Dean of the College; Dr. Philip F. Barbour, Secretary; Dr. Hugh N. Leavell, Controller. The Faculty includes about ninety surgeons and physicians, a number of whom stand at the top of the medical profession in America. The Medical School has again just been placed in Class A by the Council on Medical Education of the American Medical Association.

The Law Department of the University of Louisville is the oldest law school in the South. It has graduated about 1,400 students, many of whom are practicing their profession or filling offices of public trust in most of the States of the Union. Not a few of the graduates of the Law College are located in Louisville, and have attained high rank in the legal profession of the city.

Recently the corps of instructors has been increased, and the mode of teaching has been supplemented by the best modern methods employed at Harvard, Columbia, and other universities of prominence.

From these few words it will be seen that the old and reputable Law College of the University of Louisville has kept pace with progress, and that it is a worthy co-adjutor with the Medical College in training young men for useful and honorable professional life. Judge C. B. Seymour is Dean of the College of Law, and with his Faculty stands high in the respect and confidence of Louisville.

To Carry Out First Design

The College of Arts and Sciences was added to the University of Louisville in 1907, to carry out the founders' original design of establishing departments for the promotion of science, literature, and the liberal arts. This College is at present supported by an appropriation from the city of Louisville of $25,000 a year.

It is the higher ideals of education and the standard set by the higher institutions of learning which chiefly effect the best education in a community; for, the elevating principles of knowledge and culture paradoxically operate from the top down, and not from the bottom up. Reform, if needed in our preparatory and secondary academies, can only be assured by the possession of a college of lofty ideals and learning, radiating invigorating light and the warmth of emulation to the lower schools. Recognizing this fact, the larger cities of the United States, and among them Louisville, are rapidly developing within their own communities significant and effective university centers.

The College of Arts and Sciences of the University of Louisville does not claim to rival the older and longer-established colleges, but it does claim to have an adequate equipment and a good Faculty, competent to give instruction in courses which lead to an honorable Bachelor's or Master's degree. The doctorate will not be granted at present. The requirements for admission to the college conform to an approved standard, and credit will not be given for work done elsewhere than in a college of good standing, nor will credit be given for work done *in absentia* or by correspondence. The college, as a guarantee of serviceable work, has a Faculty which numbers among its members men whose reputation for learning and teaching ability is excellent among scholars.

The time has come in the history of the South when we need men trained in the ideals and in an intimate knowledge of the social and economical conditions of our own section, to take their place in the government of the country. Such men of such training, rather than Southerners who have received an alien or unsympathetic education, however good it may be, will be those best fitted to advance the interests of the South.

It is also coming to be clearly recognized that the most effective and most practical professional training is that which is founded upon a thorough college education. The most economical way of providing such a preliminary education is to furnish opportunities of combining the last two years' study of candidates for the A. B. degree with work which shall be preparatory to their later professional study; and this is best done in a university which is at once a professional school and an institution of liberal culture.

Let us see to it, then, that we maintain our university, and that we continually augment its efficiency until it shall become more and more the glory of its founders, the pride of the city, and the Alma Mater of renewed Southern statesmanship, Southern scholarship, and Southern development.

Co-Educational

The College of Arts and Sciences is co-educational.

University Calendar

College of Arts and Sciences

Fall Term, 1912.

The session opens September 23, 1912, and closes June 5, 1913.

September 16—Meeting of Academic Faculty.

September 16-20—Examinations for admission, as follows:

September 16—Ancient Languages, History, and Civil Government.

September 17—Modern Languages, Drawing.

September 18—Mathematics and Physics.

September 19—English and Music.

September 20—Chemistry, Physiology, Zoölogy, and Botany.

September 20-21—Matriculation and Enrollment in Classes.

September 23—Lectures begin.

October 12—Columbus Day.

November 28—30—Thanksgiving Recess.

December 23—Christmas vacation begins.

January 6, 1913—Lectures resumed.

January 26—Midyear Examinations begin.

February 1—First term closes.

Spring Term, 1913.

February 3—Second Semester begins.

February 22—Washington's Birthday.

March 21-24—Easter Holidays.

May 12-17—Examinations of the Senior Class.

May 21-31—Final Examinations.

May 31—Annual Meeting of Trustees.

May 31—Business Meeting of Alumni.

June 5—Commencement.

The Academic Faculty meets on the second Saturday in the month throughout the college year.

Fees

The tuition fee in the College of Arts and Sciences is $100 per session, half payable at the beginning of each semester. Teachers engaged in the work of their profession and children of clergymen are admitted at half the regular tuition fee. Theological students and ministers are admitted without tuition fee. A laboratory fee of $5 per term is charged in each laboratory, unless otherwise specified. A fee of $20 is charged for graduation. All special students (see page 12) are charged at the rate of $25.00 a course for the college year. All candidates for the Master's degree will be charged a uniform fee of $25.00 for each course.

Expenses

Board and Rooms.

Moderate: Furnished rooms may be engaged by two students in a room at $1 to $2 per week for each student. Meals, $2.50 to $4 per week. Private board, including fuel and light, at $3 to $5 per week.

Liberal: Those who desire more luxurious accommodations can easily secure them in the city at a cost of from $30 per month upward.

Books and stationery cost a student in the College of Arts and Sciences about $20 per year; expenses for pay lectures, athletic games, and college organizations may be whatever the student chooses to make them.

Students desiring to add to their resources may do so by finding remunerative employment for a part of their time; but this privilege is granted only by consent of the authorities of the University.

Requirements for Admission

A student is not eligible for admission (examinations) until he has completed the full course of a good high school, or its equivalent. Reckoning one year's work of five recitations a week, for nine calendar months as a unit, a student must be able to show proper credentials for eighteen units of such work before he becomes a candidate for admission. Of the eighteen units required, fourteen are prescribed and four are elective. The certificates of the high schools of Louisville, New Albany, Jeffersonville, and others of acceptable rank will admit the holder without examination, but the Faculty reserves the right to prescribe to students admitted on certificate such courses during their first year as the Committee on Admission thinks advisable.

1. Prescribed subjects, fourteen units, as follows:
    1. Mathematics, three years, three units.
    2. English Language and Literature, three years, three units.
    3. Six units, distributed between two foreign languages. Three of these units must be offered in Latin or Greek by all candidates in Arts.
    4. Science, one year, one unit.
    5. History, one year, one unit.
2. Elective subjects, four units.

The four units of elective subjects may be chosen from the list which follows, either in equivalent subjects not mentioned in the prescribed list, or in advanced work in the prescribed elementary branches:

English.	History.	Chemistry.
Greek.	Mathematics.	Physiology.
Latin.	Music:	Botany.
German.	Harmony.	Zoölogy.
French.	Counterpoint.	Civil Government.
Spanish.	Physics.	Drawing.
Hebrew.		

Certificates. Students entering from other institutions must have certificates of honorable dismissal, and the amount of work done must be properly certified, both as to time and subjects. If the admission requirements of the University are satisfied, and if the school from which the certificate is offered belongs to the class accredited by the University, the candidate will be admitted without examination.

Conditioned Students. In some instances students who have not entirely completed their preparatory work may be admitted on condition in the deficient subjects, but they must remove the conditions by making up the deficiencies in some preparatory or high school. All admission conditions must be removed before the student enters upon the work of the second year.

Special Students. Students of proper age who desire work in any department of the College of Arts and Sciences may be admitted as special students upon the recommendation of the head of the department in which work is sought. Special students may become candidates for a degree by satisfying the requirements for admission and by paying the regular tuition fee. (See under Fees, page 11.)

Advanced Standing. To entitle a student to advanced standing (1) a letter of honorable dismissal from the last institution attended, (2) a certificate of work in a college the curriculum and entrance requirements of which are equal to those of the University, and (3) an examination covering courses previously taken, are all necessary. In special cases examination may not be insisted on.

Degrees

The College of Arts and Sciences offers two undergraduate courses and two graduate courses; the undergraduate courses are the Classical and the Scientific, the first of which leads to the degree of Bachelor of Arts and the second to the degree of Bachelor of Science.

The course leading to the Bachelor's degree in arts is in the prescribed work equivalent to the course leading to the Bachelor's degree in science. The two courses require almost the same quantity of work, but they differ in the character of their training. The undergraduate classical course requires for completion four years of work, of fifteen hours a week; the undergraduate scientific course requires four years of eighteen hours a week, including laboratory work.

No student will be allowed to carry more than the prescribed number of hours, except upon the special consent of the Faculty, and under no circumstances more than five subjects the first year. No credit is given for a seminary to a first-year student if he is already taking five subjects.

Of the graduate courses, the classical and scientific each requires as a minimum one year of work, equivalent to twelve hours a week from the bachelor's standing, and leads to the degree of Master of Arts or Master of Science.

The first two years' work in all the undergraduate courses is prescribed and the remainder is elective subject to the direction of the Advisory Committee; that is, estimating the work in an undergraduate course as seventeen units, nine units are prescribed and the others are elective. The required units are: Mathematics, 2; English, 2; Foreign Languages, 2; History, 1; Science, 1, and Philosophy, 1. Enough of the fundamental work of the course is prescribed to preserve its unity, while sufficient choice is permitted to enable students to gratify individual tastes and purposes.

The following rules govern the granting of degrees:

1. No credit is given for work done *in absentia.*
2. All candidates must be in good standing in every department in which credits are desired.
3. The Master's degree is conferred only upon such candidates as have attained the Bachelor's degree in this University, or in some other institution of equal grade.
4. Candidates for a degree must spend at least the last year of their course in residence at the University.
5. No candidate is admitted to graduate courses without the consent of the Committee on Graduate Courses.
6. No course counted for a baccalaureate or professional degree will be counted toward a Master's degree.

7. For the Master's degree a major and at least one minor subject, comprising a graduate course of work equivalent to twelve hours a week for at least one year, must be chosen by the advice and consent of the Committee on Graduate Courses; and a thesis, approved by the head of the department in which the major subject is pursued, must be submitted not later than one month before Commencement. At least one year's work in both French and German is prerequisite for the Master's degree, and if an elementary course is taken while working for the Master's degree, it will not count for either a major or a minor.

Combined Academic and Medical Degrees

The University of Louisville prescribes nine required units and eight elective units for its Baccalaureate Degree, but it will confer the combined degrees, B. S. and M. D., for not less than six years' work on the conditions which follow:

1. A student who has satisfied the requirements for admission to the College of Arts and Sciences of the University of Louisville and who has made the nine units required toward the Baccalaureate Degree (of which the unit in science shall be Physics), and also an additional unit in Zoölogy or Botany, and has studied at least one year in residence in the College of Arts and Sciences, may enter upon his professional course in the College of Medicine of this University, and upon the satisfactory completion of his full four years' work in that department shall receive his Baccalaureate Degree in Science from the College of Arts and Sciences.

2. A student who has completed his medical course satisfactorily in the University of Louisville and gives evidence that he has satisfied the requirements for admission to the College of Arts and Sciences of this University, may enter the College of Arts and Sciences and on satisfying the nine units required toward the B. S. Degree (of which the unit in science shall be Physics), and in addition a unit in Zoölogy or Botany, after at least one year of residence, shall receive his B. S. Degree from the College of Arts and Sciences.

Scholarships

Two scholarships are offered to each of the following schools:
Louisville Male High School.
Louisville Manual Training High School.
Louisville Girls' High School.
St. Xavier's College.
New Albany High School.
Jeffersonville High School.
Presentation Academy.
St. Catherine's Academy.
Holy Rosary Academy.

NOTE.—Applications by other schools will be received at the office.

Prizes

A gold medal is offered each year by Bishop Woodcock to the student not a member of the Senior Class who has attained the highest standing in scholarship. The winner of this medal will be chosen by the decision of the members of the Faculty under whom the candidates recite, and by the vote of the entire Faculty. The medal will not be awarded to the same student more than once.

Donations to the Academic Library of the University of Louisville

Donated by the Former Pupils of Dean Patterson.

In the name of John McLennan	$50 00
In the name of Sam, Clarence, and Torbitt Mengel,	100 00
Elmore C. Underwood	10 00
W. H. Bradbury	25 00
Woman's League	14 59
	$199 59

Books donated to the University Library since June 6, 1911.

	VOLUMES.
Former pupils of Dean Patterson (purchased with money donated)	60
Silver, Burdette & Company	7
L. C. Page & Company	2
Abner Harris	10
Smithsonian Institute	15
Andrew P. Dustin	21
C. P. Putnam's Sons	2
Elviere Gough	10
Ellen Harris Patterson	1
Florence P. Witherspoon	6
Sir William Osler	2
J. P. Grant	12
John Patterson	72
Dearing Book Shoppe	6
Henry Baird Company	1
Laird & Lee	1
Grace Kennedy Dye	2
Eleanor Callaway Shropshire	1
National Museum	20
W. M. Anderson	4
Oxford University Press	3
James A. White	2
John E. Hedges	1
Henry Ehlers	1
Louis Siff	1
Charles Scribner	2
N. Liebschutz	3
Ginn & Company	1
Thomas Beckwith	1
American Baptist Publishing Company	2
E. C. Perrow	1
G. L. Spillman	1
	— 774

Athletics

Wholesome and well-directed athletics are encouraged by the Faculty. The basket ball teams, both for young men and young women, have been unusually good during the present year under Coach Gardner, and they give promise of being an important factor in the State championship for next year. The track team is an excellent one under the direction of Captain McMeekin, and will prove to be still stronger in the future. Arrangements have been made for the organization of a football team for 1912–13, and the services of an excellent coach will be secured.

Dramatics

In 1911–12 a Dramatic Club was organized with thirty-five members. During the year the Club presented three plays. This Club is designed for the purpose of encouraging a healthy interest in the best drama and of giving opportunity for the development of the dramatic talent of the University. Among the activities of the Club for next year will be included a play to be given for two performances in Macauley's Theater.

Other Clubs

The University also supports a German Society, a Current Events Club, and a Glee Club.

Studies in which Examinations are Held for Admission

LATIN.

1. Tuell and Fowler's Latin Lessons completed, or the equivalent.

2. Kelsey's Cæsar, four books, and Latin exercises based on them. An adequate amount of Eutropius, Tibullus, or Propertius may be substituted for one book of Cæsar.

3. Kelsey's Cicero, four orations and appropriate composition.

4. Frieze's Vergil's Æneid, four books, with prosody. For two books, Kelsey's Ovid, one thousand lines, may be substituted.

GREEK.

The examination will be adapted to the proficiency of those who have studied Greek in a systematic course of five exercises a week, extending through at least three school years.

(*a*) The translation of four books of Xenophon's Anabasis and the first three books of Homer's Iliad. (The passages set for translation must be rendered into simple and idiomatic English.)

(*b*) A thorough examination on a prescribed portion of Xenophon (about thirty pages), directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Attic prose, involving the use of such words, constructions, and idioms only as occur in the portion of Xenophon prescribed.

The portion of Xenophon prescribed for this examination is the first book of the Anabasis, chapters I–VIII.

ENGLISH.

The candidate's preparation in English should be such as is furnished by a good high school following the recommendations of the Conference on Uniform Entrance Requirements. The entrance examination will in general conform to these recommendations and

will be based upon the books therein specified for reading and study, of which the most important are listed below.

The examination will be a test of the candidate's elementary knowledge of (a) the English Language, and (b) the general course of English Literature since Shakspere, and (c) of his ability to write English clearly and accurately, with due observance of spelling and punctuation. The candidate should therefore be familiar with the grammar of fundamental English constructions and be able to analyze into their constituent elements sentences of reasonable difficulty. He should possess a vocabulary sufficiently wide to understand the books prescribed for reading, and to explain clearly those forms of expression found in the books prescribed for study, which are intelligible as Modern English.

He should have a general conception of the development of English Literature, both in prose and poetry, since Shakspere's time; and should be reasonably familiar with the subject-matter of the books prescribed for reading, and be able to give a coherent analysis of the form and structure of those prescribed for study.

He should be able to write clear and simple English, accurately phrased, correctly spelled, and properly punctuated; and should know the principles of paragraph structure and be able to employ the simpler forms of composition, especially those of letter and theme writing.

FOR READING.

The Old Testament; The Odyssey or Vergil's Æneid (in standard translation); three plays of Shakspere, preferably The Merchant of Venice, A Midsummer Night's Dream, and Julius Cæsar; Part I of Defoe's Robinson Crusoe; Scott's Quentin Durward; Dickens' David Copperfield; George Eliot's Silas Marner; Part I of Bunyan's Pilgrim's Progress; The Sir Roger de Coverley Papers in the Spectator; Irving's Sketch Book; Carlyle's Heroes and Hero Worship; Lincoln's, or Webster's, or Washington's important addresses; Gray's Elegy; Goldsmith's Deserted Village; Byron's Prisoner of Chillon; Palgrave's Golden Treasury of Songs and Lyrics (First Series).

FOR STUDY.

Shakspere's Macbeth; Milton's L'Allegro, Il Penseroso, and Comus; either Burke's Speech on Conciliation with America, or Washington's Farewell Address, and Webster's First Bunker Hill Oration; either Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

GERMAN.

Students offering German for admission must be able to pass an examination on the classification and declension of German nouns and adjectives (strong, weak, and mixed); conjugate strong, weak, and mixed verbs; separable and inseparable verbs; know the common prepositions and the cases they govern; and the comparison of adjectives and adverbs; the three word-orders and principal rules of syntax; have read about six hundred pages of prose and poetry; be able to write from dictation and converse in German on such dictation.

A German Grammar, such as Thomas' or Becker's completed, together with about six hundred pages of German prose with conversation based upon it, cover the required work.

FRENCH.

Students offering French for admission must have mastered the irregular verbs and be able to write a synopsis of regular or irregular verbs, active and passive voices; write French from dictation and ask and answer easy questions on the dictation; have read about six hundred pages of prose and poetry; be familiar with the rules of spelling and pronunciation.

Part I in the grammar of Fraser & Squair, together with a French Reader like Aldrich's or Sym's, with exercises in French Composition, constitute the required work.

HISTORY.

The examination may be taken in "English and American History," in "Ancient History," or in "History of Continental Europe."

(*a*) ENGLISH-AMERICAN HISTORY. The examination will be adapted to a one-year's course of five exercises a week in English History and in United States History, based on McMaster's Brief History of the United States and on Walker's Essentials in English History.

(*b*) ANCIENT HISTORY. The examination will be adapted to the proficiency of those who have studied Greek and Roman History in a systematic course of five exercises a week extending through at least one school year. The examination will be based on Meyer's Ancient History.

(*c*) HISTORY OF CONTINENTAL EUROPE. The examination will cover the period from 476 A. D. to 1900 A. D., and will be adapted to the proficiency of students who have taken a systematic course of five exercises a week throughout at least one school year. The examination will be based on Meyer's European History.

MATHEMATICS.

Elementary Algebra. As much as is contained in the better American and English text-books. The student should not only have a thorough understanding of the four fundamental operations with rational algebraic expressions, but he should be thoroughly familiar with the various methods of *factoring*, with the theory of common divisors and multiples, involution, including the binomial theorem for positive integral exponents. He should have a thorough knowledge of theory of exponents, integral, fractional, positive and negative; of radicals, including the extraction of square roots of polynomials and of numbers; the solution of equations of the first degree involving one or more unknown quantities, and the solution of quadratic equations involving one or two unknown numbers.

Plane Geometry. As much as is contained in the better American and English text-books. Besides learning to demonstrate rigorously the usual theorems, the pupil should solve a large number of original exercises, including numerical and *loci* problems.

SCIENCE.

The examination will be adapted to the proficiency of those who have studied Chemistry, or Physics, or Physiology, or Botany, or Zoölogy in a systematic course consisting of one school year.

The text-books will be of the following standard:

Physiology.

Martin's "Human Body."

Conn, Budington & Allyn's Advanced Physiology and Hygiene.

Physics.

Wentworth and Hill.

Botany.

Gray's School and Field Botany.

Coulter's Plant Life.

Zoölogy.

"Animal Life," by Jordan & Kellogg.

Chemistry.

Remsen's General Inorganic Chemistry.

Departments and Courses of Instruction

1912—1913

Special afternoon courses in every department are arranged for the benefit of teachers.

No course in any department will be opened unless there are at least three applicants for the course (subject to the pleasure of the Advisory Committee).

DEPARTMENT OF GREEK.

PROFESSOR PATTERSON.

For Undergraduates.

1. ELEMENTARY COURSE. (For the benefit of students who offer other foreign languages in the requirements for admission and who desire to study Greek within the University.) Benner and Smyth; Goodwin's Greek Grammar; Pearson's Prose Composition; Xenophon (*The Anabasis*). (Course 1 may not be taken to remove an admission condition, and will not count for honors.) Two years. First year: M. W. F. 9–10; second year: T. Th. S. 10–11.

2. Plato (*Apology, Crito*); Lysias (selected orations); Homer (selections from *Iliad and Odyssey*); Euripides (*Cyclops*); Lectures on the History of Greek Literature and Life (Jevons' *Greek Literature*); Bluemner (*Life of the Ancient Greeks*); prose composition. Required of Freshmen who elect Greek. Three hours a week, one year, or may be taken as half year course. M. W. F. 11-12, one year.

For Undergraduates and Graduates.

Hours to be arranged.

3. GREEK LITERATURE. Aristophanes (*Acharnians, Birds*); Æschylus (*Prometheus Bound*); Sophocles (*Œdipus Tyrannus*); Euripides (*Bacchæ*). Required of students who elect Greek. Three hours a week, one year.

4. ENGLISH COURSE IN GREEK DRAMA. Talks on the Dramatic Art and Literature of the Greeks, with reading and study of Greek plays in translation. Æschylus, Sophocles, Euripides, Aristophanes (selected at the pleasure of the instructor). *This course is especially designed for those who have not studied Greek, but who wish to become acquainted with the culture and literature of ancient Greece.* Two hours a week, half year.

Primarily for Graduates.

Hours to be arranged.

5 and 6. Advanced courses in Greek will be arranged for students who are candidates for the Master's degree and wish to take Greek as their major subject.

DEPARTMENT OF LATIN.

Professor Blackwell.
Mr. Dustin.

For Undergraduates.

1. Elementary Course. (For the benefit of students who offer other foreign languages in the requirements for admission, and who desire to study Latin within the University.) Bennett's *First Year Latin;* Bennett's *Latin Grammar;* Pearson's *Latin Prose Composition;* Allen & Greenough's *Cæsar,* four books; Cicero's *Milo, Marcellus, Ligarius,* and the *Fourteenth Philippic;* Bennett's Vergil's *Æneid,* four books. (Course 1 may not be taken to remove an admission condition, and will not count for honors.) First year: M. W. F. 12-1. Second year: T. Th. S. 10-11.

2. Sallust's *Jugurtha;* Livy, Book I and selections from II—X, with constant attention to grammatical and syntactical forms; Latin Prose Composition. Required in Classical Course. T. Th. S. 9-10, one year.

3. Horace, *Satires and Epistles*; Tacitus, *Germania and Agricola*; Latin Prose Writing continued; open to students who have taken Course 1. Required in Classical Course. T. Th. 4-5, S. 11-12, one year.

For Undergraduates and Graduates.

4. Horace, *Odes and Epodes*; Juvenal, five Satires. Preceded by Courses 1 and 2. Advanced Prose Composition. M. W. F. 11-12, one year.

5. Seneca, *Selections* (Ball); Pliny's *Letters* (Merrill); Lectures on Roman Public and Private Life; preceded by Courses 1, 2, and 3. T. Th. 3-4, one year.

6. Plautus, *Rudens;* Seneca's *Plays* (Kingery); Terence's *Phormio*; *The Roman Drama;* prerequisite Courses 1, 2, and 3. M. F. 12-1, one year.

Primarily for Graduates.

Hours to be arranged.

7. Lucretius, *De Rerum Natura*, a study of language, style, and sources of the poet's work. Two hours a week, one year.

8. Petronius, *Cena Trimalchionis*, with a study of the vernacular of the people. Two hours a week, one year.

9. *Public and Private Roman Law* (Robinson). Two hours a week, one year.

10. *Introduction to Latin Epigraphy* (Egbert). Hours arranged for 1, 2, 3, and 4. Two hours a week, one year.

DEPARTMENT OF HEBREW.

Professor Blackwell.

Hours to be arranged.

1. Mannheimer's Hebrew Grammar and Readings; Translations from English into Hebrew. Two hours a week, one year.

2. Davidson's Grammar. Biblical historical readings. Two hours a week, one year.

3. *The Psalms, Isaiah, The Song of Songs.* Lectures. Two hours a week, one year.

DEPARTMENT OF ENGLISH.

Professor Perrow.
Miss Terry.

The aim of the work in the department of English is threefold:

1. The department aims to give a training in English composition adequate for the ordinary demands of social, commercial, and professional life. Practice in writing is begun in English 1, and written work is called for in all subsequent courses.

2. The courses are so arranged that, taken together, they afford opportunity for the study of the origin and development of the English language and literature.

3. The department seeks especially to give such training as will develop the power of the student to interpret and appreciate the work of the master writers of English, and to inspire an interest in them such as will lead to a further study of literature.

For Undergraduates.

1. (*a*) English Composition. The work in this course consists of a careful study of selected models of English prose, and the practical application of the results of such study to regular work in composition. Woolley's *Handbook of Composition* and Woolley's *Exercises*. Required of all undergraduates. T. Th. S. 11–12, one year.

(*b*) English Composition. A course in writing from models. Lectures. Personal conferences. Admission limited to pupils who can satisfy the instructor that they are prepared to profit by advanced work in Composition. S. 10–11, one year.

2. English Literature. This course is intended (1) to give some idea of the development of English literature, (2) to interest the student in the study of the more important English writers, and (3) to give some opportunity for practice in writing. Required of all undergraduates. T. Th. 4-5, S. 12-1, one year.

For Graduates and Undergraduates.

3. Shakspere. In this course the work in Shakspere is made a nucleus for a general view of Elizabethan drama. A careful study of selected plays read in class, and written reports on plays assigned for outside reading. Lectures on Elizabethan drama.

In 1912–1913 the class will study *Henry IV*, parts 1 and 2, *Macbeth, King Lear*, and *All's Well that Ends Well*. Temple edition. M. W. F. 3–4, one year.

4. Chaucer. A careful class-room study of selections from Chaucer in connection with outside reading in Middle English literature, and lectures on political, social, and literary conditions of the time. T. Th. 3-4, one year.

5. Anglo-Saxon. This course is intended (1) to give a fair reading knowledge of Anglo-Saxon prose and poetry, and (2) to furnish a basis for a more advanced study of the English language. Bright's *Anglo-Saxon Reader* and Wyatt's *Beowulf*. One year. [Omitted 1912-13.]

6. Nineteenth Century Poetry. This course will consist of the reading and interpretation of selections from the more important poets of the Nineteenth Century, and a consideration of their relations to some of the political, social, and scientific tendencies of the time. M. W. F. 4-5, one year.

7. Nineteenth Century Prose. A wide reading in the more important prose writers of the Nineteenth Century, with some consideration of their relations to some of the problems of the age. One year. [Omitted 1912-13.]

DEPARTMENT OF GERMAN.

PROFESSOR SPILLMAN.

For Undergraduates.

1. ELEMENTARY COURSE. (*a*) This course is for those students who begin the study of German in the University, and consists in completing the work of an elementary German grammar, such as Bacon's (German Grammar), Becker-Rhoades', or Thomas', and a German Reader like that of Carruth's *Im Vaterland* or *Glück Auf*. T. Th. S. 10-11, one year.

2. ELEMENTARY COURSE. (*b*) This constitutes the second year's work in German. About 600 pages of modern German will be read, a work in composition will be used (Pope, Osthaus, or Buchheim), and Vos' *Materials for Conversation* will serve as the basis for conversation. T. Th. 2-3, S. 9-10, one year.

For Undergraduates and Graduates.

3. INTERMEDIATE COURSE. (*a*) This is a reading course in the German classics of Lessing, Goethe, and Schiller. The history of German literature will be studied. Kluge and Klee will serve as the basis, together with an anthology like that of Collutz' or Thomas'. Prerequisite: Courses 1 and 2 or their equivalent. M. W. F. 4-5, one year.

4. INTERMEDIATE COURSE. (*b*) This is a reading course in Goethe's *Faust*, Parts I and II (Thomas' edition). The history of the German language will be studied from Oscar Weise's *Unsere Muttersprache* or Otto Behaghel's *Die Deutsche Sprache*. Prerequisite: Courses 1 and 2 or their equivalent. T. Th. 3-4, S. 12-1, one year.

5. INTERMEDIATE COURSE. (*c*) This is a course intended for students of science and will alternate with Course 4. Blochmann's *Introduction to Scientific German* and Brandt & Day's collection of scientific essays will be read. Prerequisite: Courses 1 and 2 or their equivalent. Three hours a week, one year. [Omitted in 1912-13.]

Primarily for Graduates.

Hours to be arranged.

6. SCHILLER COURSE. Lectures on the life and works of Schiller with special emphasis on the trilogy of *Wallenstein* will be given. Essays and reports in German are required of the students. Prerequisite: Courses 1, 2, and 3, or their equivalent. T. Th. 9-10, one year.

7. Lessing Course. Lectures on the life and works of Lessing, emphasizing his importance to modern art-criticism through a study of his *Laocoon*. Essays and reports in German are required of the students. Prerequisite: Courses 1, 2, or 3, or their equivalent. Two hours a week, one year.

8. Middle High German. *Der arme Heinrich*; *Das Niebelungenlied;* Paul's *Mittelhochdeutsche Grammatik*. Prerequisite: Courses 1, 2, and 3. Two hours a week, one year.

9. Gothic. Elements of the language. (Lautverschiebung.) Reading from Wulfilas' translation of the Gospels: Gothic and Greek. Streitberg's *Gotisches Elementarbuch*. T. Th. 1-5.

DEPARTMENT OF FRENCH.

Professor Spillman.
Professor von Walther.

For Undergraduates.

1. Elementary Course. (*a*) This is a beginner's course, covering Fraser & Squair's Grammar, Part I. Special stress is laid on exercises in verbs, pronunciation, and dictation. Besides the reading matter provided in the grammar, Aldrich & Foster's Reader will be studied. M. W. F. 2-3, one year.

2. Elementary Course. (*b*) This course completes Fraser & Squair's Grammar, Part II, and includes the reading of about 800 pages of modern authors, as also training in easy conversation and composition. T. Th. S. 11–12, one year.

For Undergraduates and Graduates.

3. Intermediate Course. (*a*) This course comprises the reading of such classical and modern French works as will widen the student's vocabulary. It includes also drill in rapid reading without translation.

This course is intended to complete the student's foundation in French and to serve as an introduction to the purely literary courses. (Prof. von Walther.) Prerequisite: Courses 1 and 2 or their equivalent. M. W. F. 4-5, one year.

4. Intermediate Course. (*b*) This is a course in composition and conversation and is intended for students who have had at least two years of French and who wish to learn especially to speak the language. The work will consist of theme-writing twice and conversation once a week. Jules Lazare's French Composition and Berlitz's French I and II for conversation will be used. (Prof. von Walther.) Prerequisite: Courses 1 and 2 or their equivalent. M. W. F. 11–12, one year.

5. Intermediate Course. (*c*) This course is intended to give a broad outline of the history of French literature, accompanied by parallel readings. It is based on Duval's *Histoire de la Littérature Française* and will introduce the student to the development of the French language and the different schools, representing the Sixteenth, Seventeenth, Eighteenth, and Nineteenth Centuries. Prerequisite: Courses 1, 2, and 3, or their equivalent. Three hours a week, one year.

Primarily for Graduates.

Hours to be arranged.

6. Literature of the Seventeenth Century.
7. Literature of the Eighteenth Century.
8. Literature of the Nineteenth Century.

These advanced courses consist of lectures, rapid reading, and reports, and are intended to give to the student an intimate knowledge of French literature. Course 6 will consist chiefly of the works of Molière; Course 7 of Rousseau and Voltaire, while Course 8 will cover the Romantic and Realistic Schools, as represented by Victor Hugo, Balzac, and Zola. This course is based on *Le Mouvement Littéraire au XIX^e Siècle* (Pélissier, Taine).

Courses 6, 7, and 8 will alternate; in 1912-13 Course 8 will be given. Two hours a week, one year.

DEPARTMENT OF SPANISH.

Professor Blackwell.

(Temporarily.)

Hours to be arranged according to demand.

1. Elementary Spanish. (For the benefit of students who offer other foreign languages in the requirements for admission, and who desire to study Spanish within the University.) Study of pronunciation; exercises in grammar; reading of simple selections. M. W. F. 10-11, one year.

Texts: Hill's and Ford's *Spanish Grammar*; Hill's *Spanish Tales for Beginners*. Open to all students except beginners in French, but may not be taken to remove an admission condition, and will not count for honors.

2. Ramsey's *Modern Spanish*; Alarçón's *El Capitán Veneno;* Calderón's *La Vida es Sueño*; Galdós's *Marianela.* T. Th. 11–12, one year.

UNIVERSITY OF ILLINOIS

DEPARTMENT OF ITALIAN.

PROFESSOR BLACKWELL.

(Temporarily.)

PRESIDENT'S OFFICE

Hours to be arranged.

1. Young's Italian Grammar—Bowen's Italian Reader—*I Promessi Sposi*. Open to all students, but may not be taken to remove an admission condition, and will not count for honors. Two hours a week, one year.

2. Tasso's *Girusalemme Liberata*, three cantos; Machiavelli's *Principe*. Two hours a week, one year.

3. Selections from Boccaccio; Dante's *Purgatorio*. Advanced Prose Writing. Two hours a week, one year.

DEPARTMENT OF HISTORY.

PROFESSOR VON WALTHER.

For Undergraduates.

1. HISTORY OF MEDIÆVAL CONTINENTAL EUROPE. This is a general course, beginning with the Migration of Nations and leading up to the time of the Reformation. Special stress is laid in the first term upon the development of Germany and the time of Hildebrand, while the second term takes up the Crusades, the development of France, and the movements which led to the Reformation. M. W. Fr. 10–11, one year.

2. HISTORY OF MODERN CONTINENTAL EUROPE. This is a general course, beginning with the Reformation and ending with the year 1789.

In this year's course the periods of Louis XIV for the first semester and of Frederick the Great for the second semester will be the special topics. M. W. Fr. 11–12, one year.

For Undergraduates and Graduates.

3. GREEK HISTORY. This advanced course presents a study of the evolution of political ideas from the Greek city-states, through Alexander's Empire to the Roman Empire; it also serves as a historic basis for an understanding of the contributions of the Greeks to later civilization. T. Th. S. 10-11, one year.

4. ROMAN HISTORY. This is an advanced course, showing the development of the Roman State from its begininng to 476 A. D.,

and emphasizing those economic, social, and religious questions which form the basis of European Mediæval and Modern History. M. W. F. 3-4, one year.

Courses 3 and 4 alternate. In 1912–13 Course 4 will be given.

Primarily for Graduates.

5. History of the Nineteenth Century in Continental Europe. The course begins with a summary of the French Revolution and considers during the first term especially the effect of Napoleon I's reign upon European history; also the conflict of liberal and reactionary ideas, as shown in the periods of the Restoration, the revolutions of 1830 and 1848, and the extension of reforms.

The work in the second term will treat particularly of the establishment of the German Empire, of the Kingdom of Italy, and of the Republic of France. Prerequisite: Courses 1 and 2. T. Th. 11–12, one year.

6. History of Philosophy. (Professor Caldwell.) For description see Department of Philosophy, Course 5.

7. History of Mathematics. (Professor Siff.) For description see Department of Mathematics, Course 14.

8. History of Music. For description see Department of Music, Courses 2 and 4.

DEPARTMENT OF MATHEMATICS.

Professor Siff.

For Undergraduates.

In the following four courses, 1 and 2 are considered *one* course. All students are required to take either 1, 2, and 3, or 3 and 4.

1. Plane and Spherical Trigonometry. Correct definition of trigonometric functions, trigonometric equations, inverse functions, and the application of trigonometry to practical problems. T. Th. S. 9-10, first semester.

2. Solid Geometry. Besides the work of the text, much attention is given to the demonstration of original theorems. T. Th. S. 9-10, second semester.

3. Higher Algebra. This course starts with the Arithmetic and Geometric Progressions and covers the theory of Quadratic Equations, Binomial Theorem, Permutation and Combination, Logarithms, Convergency and Divergency of Series, Summation of Series in general, Partial Fractions, Probability, Continued Fractions, Determinants, and the general theory of Equations. M. W. F. 3-4, one year.

4. Analytic Geometry. This course is continued through the year; it covers the point, line, circle, and the three simple conics. Considerable time is devoted to the discussion of the general equation of the second degree. M. W. F. 10–11, one year.

Note: Course 4, on the demand of a sufficient number of students, may be repeated in the afternoon.

For Undergraduates and Graduates.

5. The General Theory of Equations, based on the treatise of Burnside and Panton. Useful to students who wish to have a more thorough knowledge of Algebra, and who intend to teach mathematics. T. Th. 3-4, S. 10-11, one year.

6. Differential and Integral Calculus. The first term is devoted to Differential and the second term to Integral. The course covers the fundamental principles and processes of differentiation and integration, with much use of graphical methods and the application of the Calculus to Geometry, Mechanics, and Physics. An elementary course. M. W. F. 4-5, one year.

Primarily for Graduates.

Hours to be arranged.

7. Advanced Differential and Integral Calculus. Prerequisite Course 6. Lectures and recitations. Three hours a week, one year.

8. Solid Analytic Geometry. Prerequisite Courses 4 and 6. Lectures and recitations. Three hours a week, one year.

9. Differential Equations. Partial and Linear. Important to students who make a specialty of Mathematics and to students of Physics. Three hours a week, one year.

10. The Theory of Algebraic Curves, based on Wieleitner. The tracing of curves, the derivation of the Algebraic Equation from the given Geometric conditions, and the general theory of Asymptotes *from an entirely original point of view* are essential features of this course. Prerequisite: Courses 4, 5, and 6. Lectures and recitations. Three hours a week, one year.

11. The Theory of Functions for Real and Complex Variables. Based on Harnack, and Picard's *Traite d'Analyse*. Prerequisite Courses 4, 5, 6, and 7. Three hours a week, one year.

12. Advanced Analytic Geometry. Based on the works of Clebsch, Salmon, and Darboux. Three hours a week, one year.

13. The Theory of Numbers. Based on the works of Gauss and Lejeune Dirichlet. Lectures. Three hours a week, one year.

14. The History of Mathematics. No special knowledge of Mathematics required. Open to all students. Lectures. W. 5–6, one year.

Note: The Department reserves the right to omit such courses from 5–14 as it may see fit in 1912–1913.

DEPARTMENT OF PHYSICS.

Professor Anderson.
Professor Siff.

For Undergraduates.

1. General Physics. A general course, including the principles of mechanics, heat, light, sound, and electricity. This course is required of all academic students who elect Physics. Lectures and recitations. The lectures are illustrated by means of experiments. (Professor Siff.) M. W. Th. F. 12-1, one year.

2. Experimental Physics. A laboratory course designed to supplement Course 1. The student is expected to perform about sixty experiments, the majority of which are quantitative. Prerequisite: Course 1 or its equivalent. M. W. F. 4-6, one year.

3. Mechanics and Heat. During successive years courses in Mechanics, Heat, Sound, Light, and Electricity will be offered. A more thorough and more mathematical treatment of these subjects will be given than is offered in Course 1. For the year 1912–13 a course in Mechanics and Heat will be given. Hours for laboratory practice will be arranged by the instructor. T. Th. 2–4, one year.

4. Dynamo-Electricity. A study of direct-current dynamos and motors. For further description see under "Technical Courses." Prerequisite: Course 1 or its equivalent. Lecture: T. 3:30–4:30; Laboratory work: M. W. F. 10-12, one year.

DEPARTMENT OF TECHNICAL COURSES.

Professor Anderson.
Mr. Brigman.

The University of Louisville has not, as yet, a full course of engineering, but the following studies, which correspond to the first two years' work usually required by the best engineering schools, are now open to students who intend to become engineers. The University earnestly hopes that these courses will eventually lead to the development of a complete Department of Engineering.

FRESHMAN YEAR:

Trigonometry and Higher Algebra	6 hours.
Physics 1	3 "
Physics 2	6 "
English	3 "
Drawing	4 "

SOPHOMORE YEAR:

Analytic Geometry and Calculus	6 hours.
Chemistry	6 "
Mechanics and Heat	2 "
Dynamo-Electricity	4 "
English	3 "
German	3 "
Drawing	4 "

1. DYNAMO-ELECTRICITY. The laboratory course will consist of work with dynamos and motors under practical working conditions; measurements of efficiency; plotting of characteristic curves, etc. The lecture course will take up various principles connected with the operation and design of direct current machinery. The laboratory equipment will consist of the various types of motors and generators, the motive power being furnished by a gas engine of ample capacity. A complete set of ammeters and volt meters, together with rheostats for absorbing the output of the plant, and dynamometers for measuring the power supplied, will enable the student to make not only the usual commercial tests, but also to carry on investigations of a more advanced character. M. W. F. 10-12.

The attention of students interested in engineering is invited to the excellent equipment of the physical laboratory. This is constantly being increased with the best modern apparatus, and next year will offer ample opportunity for students to do individual experimental work in physics.

2. SURVEYING. The work will consist of the use of the chain, compass, transit, and level in the laying out and dividing of land, establishment of grades, drawing of maps, etc. The practical work will be supplemented by a lecture and recitation course, in which the various problems to be met with will be studied and the principles underlying them described. The University is equipped with first-class instruments of the most modern type to carry out the practical part of the instruction. Open to students who have had trigonometry. Hours to be arranged.

3. MECHANICAL DRAWING. Hours to be arranged.

4. FREE-HAND DRAWING. Hours to be arranged.

DEPARTMENT OF PHILOSOPHY AND OF POLITICAL AND SOCIAL SCIENCE.

PROFESSOR CALDWELL.

NOTE: Course 5 is the required unit in Philosophy.

For Undergraduates.

1. PSYCHOLOGY. A study of the nature of consciousness in its relation to external conditions and cerebral accompaniments. Attention will be given to the nervous system, sensation, perception, feeling, attention, instinct, habit, memory, ideas, language, imagination, concepts, the self, will, dissociation, applications of psychology, and other topics. M. W. F. 3-4, first semester.

2. ADVANCED PSYCHOLOGY. A study of selected portions of the field of abnormal psychology, including hypnotism, psycho-therapeutics, and certain related phenomena. This will be followed by a study of social psychology, including the consideration of suggestibility, the crowd, fashion, conventionality, custom, national imitation, conflict, public opinion, and related topics. M. W. F. 3–4, second semester.

3. EDUCATIONAL PSYCHOLOGY. A study of the psychological principles of teaching. Consideration of the educational significance of recapitulation, instinct, heredity, hygiene, individual differences, memory, association, imitation, originality, imagination, apperception, motor expression, thinking, emotion, interest, volition, and other phases of psychology. T. Th. 5–6, S. 12–1, first semester.

4. SOCIOLOGY. General problems, facts, and theories of sociology; historical and practical philanthropy, pensions, juvenile courts, and associated charities. Anthropological sociology, embracing materials of civilization and primitive social institutions. Abnormal sociology, including the theory of degeneration, with practical application to pauperism, charities, crime, penology, and reformatory systems. Practical work by visiting reformatory, penal, and corrective institutions. In and near Louisville there are several penal and reformatory institutions to which students have access; these afford ample opportunity for extended research. T. Th. 5-6, S. 12-1, second semester.

5. HISTORY OF PHILOSOPHY. A study of the history of philosophic thought in ancient, mediæval, and modern times; problems, doctrines, and tendencies from Thales through Herbert Spencer. M. W. F. 11–12, one year.

6. METAPHYSICS. A study of the leading types of contemporary philosophical theory; problems and doctrines of being and knowl-

edge; consideration of pragmatism and other current theories of the nature of truth. M. W. F. 2-3, second semester.

7. Ethics. A study of the principles of moral judgment, with exposition and criticism of the great theories concerning the basis of the distinction between right and wrong conduct. A consideration of the nature of goodness, duty, virtue, culture, and religion. Both the theoretical and the practical problems of ethics will be studied. M. W. F. 4-5, first semester.

8. Æsthetics. A study of the principal æsthetic problems and doctrines. M. W. F. 4-5, second semester.

Primarily for Graduates.

9. Logic. A study of the formal laws of thought, with their application to the special methods of the sciences; outlines of the general character of the thinking process. Consideration of certain recent contributions to logic. T. Th. 3-4, S. 10-11, second semester.

10. Special work will be arranged for those wishing to pursue advanced study in philosophy or psychology.

Note: The Department reserves the right to omit any courses from 3 to 10 it may think advisable during 1912-1913.

DEPARTMENT OF CHEMISTRY.

Professor Robinson.
Professor Chandler.
Mr. Mueller.

Hours to be arranged.

For Undergraduates and Graduates.

1. General and Inorganic Chemistry. A general survey of the principles of chemical action as illustrated by the common elements and compounds. Emphasis is laid on the relations of chemical science to everyday life and to industrial economy. In the laboratory, the student prepares and studies the reactions of the more common substances, and is early led into systematic qualitative analysis, as the best means of getting an insight into the methods of Chemistry, and, in the case of those who expect to continue its study, of laying a foundation for more advanced work. Lectures and recitations, three hours a week (McPherson and Henderson or Stoddard's *Introduction to Chemistry*). Laboratory, M. W. F. 2-4, one year.

2. Advanced Inorganic and Analytical Chemistry. A review and amplification of Course 1. Special attention is paid to

the principles and theories of Chemistry, and their application to the analytical work of the laboratory, in order to develop habits of rational procedure, rather than mechanical following of directions. Recitations two hours a week, one year (Alexander Smith's *Introduction to General Chemistry*); laboratory, six hours a week, one year, qualitative analysis and a short course in quantitative analysis, particularly volumetric methods. Open to students who have had Course 1 or its equivalent.

3. Organic Chemistry. A study of the principles of the chemistry of biological substances and other carbon compounds. This course is important especially for students who contemplate studying medicine, or specializing in biology or domestic science. Open to all who have had Course 1. Lectures and recitations two hours a week, one year; or with medical students' class, four hours a week, second semester only. Laboratory, four hours a week, one year. Remsen's *Organic Chemistry*.

4. Physiological Chemistry. This is a course for medical students which is open to students of the College of Arts and Sciences who have had Courses 1 and 3. It includes a study of the chemistry of food-stuffs, of the processes of digestion, and of general metabolism, and the composition of animal tissues and fluids. Lectures, two hours a week, and laboratory, four hours a week, for one year. Hawk's *Practical Physiological Chemistry* and other texts.

5. Quantitative Chemistry. Practice in some of the most important methods of quantitative analysis, with special attention paid to the development of proper technic and accuracy. Laboratory, eight hours a week for one semester. Talbot's *Quantitative Analysis*. Course 2 prerequisite.

Primarily for Graduates.

6. Physical Chemistry. A non-mathematical discussion of the principal topics of the subject. Two hours a week, one year. Walker's *Physical Chemistry*.

7. Advanced Organic Preparations. Selected experiments from Gattermann's *Practical Methods of Organic Chemistry* and similar books, illustrating class reactions and typical syntheses. Laboratory, eight hours a week, one semester.

8. Special Quantitative Analysis. Work in analysis of minerals, soils, water, milk, foods, etc., may be elected by either undergraduates or graduates who have had Courses 2 and 5. Credit for such work will be based on the amount of time put in and satisfactory work accomplished.

Advanced Organic Chemistry and a brief course in History of Chemistry are required of candidates for the Master's degree who elect Chemistry as a major subject. These courses are arranged to suit conditions.

On account of the growing importance of Chemistry in its relation to agriculture, a course in Agricultural Chemistry will be arranged whenever there is sufficient demand for it.

Laboratory Fees in Chemistry. Five dollars per semester. Apparatus broken by the student is also charged to him. For this purpose, a deposit of five dollars is required from each student, and the deposit is returned to him at the end of the session, minus breakage charges.

DEPARTMENT OF BIOLOGY.

Professor Eddy.
Professor MacCraken.
Dr. Jefferson.
Dr. Zahner.

For Undergraduates.

1. Anatomy. The course consists of practical demonstrations taking up all the important viscera, their gross anatomy and their relations to one another. Also instruction in normal Histology, embracing the use of the microscope, the preparation of tissues, cutting, staining, and mounting of sections, and demonstrations of the minute or microscopical anatomy of the various tissues and organs. M. W. 3-5, first semester.

2. Physiology. The course consists of Lectures and Demonstrations. The lectures will be illustrated by charts and drawings, especially in free-hand drawings in colored chalks made by the instructor during the recitation. M. W. 3-5, second semester.

For Undergraduates and Graduates.

3. Bacteriology. A course in the principles of Bacteriology, including methods of studying bacteria, disinfection, etc. F. S. 9–11, one year.

Primarily for Graduates.

4. Bacteriology. The course is a comprehensive one in practical bacteriology, in which students are required to perform a systematic line of experiments in the laboratory. Careful attention is given to technique, methods of staining and mounting specimens in the laboratories. These specimens made by the students become their property, proving invaluable for future reference. T. Th. 3-5, one year.

For Undergraduates.

Hours to be arranged.

1. Botany. The course will deal with the structure and classification of the local flora, and the more elementary details of plant physiology.

During the fall and early spring, as much work as practical will be done in the field. This will be supplemented with work in the laboratory during mid-year, which will include the broader phenomenon of germination and growth. Every effort will be made to render this course as instructive and practical as possible to teachers of Nature Study.

Three hours a week, one year, exclusive of field work, will be devoted to this course.

For Undergraduates and Graduates.

2. The course will deal with Cryptogamic Botany and more detailed physiology of plants, and much attention will be paid to histological and experimental phases of the subject. Opportunity will be afforded to each student for doing individual work under the supervision of a member of the staff. A minimum of three hours a week, one year, will be required in this course.

Primarily for Graduates.

3. The course embraces ecology, organography, and histology. The department reserves the right to modify this course as circumstances may indicate.

For Undergraduates.

Hours to be arranged.

1. Zoölogy. The course consists of a general study of the structure of invertebrates and their comparative anatomy. This work will begin with the protozoa.

Habits, reproduction, nutrition, motion, and sensation will be studied.

Students are required to work with animals in the laboratory during this course. Classification of the more common animals will be taken up. Two hours a week, one year.

2. The course consists of a general study of lower animals and the vertebrates. Study of nutrition, reproduction, motion, and sensation. This course will include laboratory and as much field work as may be practicable.

Dissection of vertebrates by students and classification of animals in general. Two hours a week, one year.

(For students who have completed Course 1 or its equivalent.)

For Undergraduates and Graduates.

3. The course consists of general relations and geographical distribution. Field work. Seminary. One hour a week, one year.

DEPARTMENT OF MUSIC.

PROFESSOR GRANT.

The Department of Music regards a general knowledge of musical expression and an intelligent appreciation of musical form as an important element of culture. Its courses are therefore primarily organized with these ends in view. But the instruction, especially that of the advanced courses, should be of practical value to those who intend to enter upon a professional career.

The regular work of the department is supplemented by public recitals throughout the year, and the aim of these is to illustrate the various modern developments of music which are of general public interest.

For Undergraduates.

1. ELEMENTARY MUSICAL THEORY. (*a*) Notation, clefs, signatures; diatonic and chromatic intervals and their inversions; consonance and dissonance; major and minor diatonic scales; chromatic and enharmonic scales; meanings of terms and signs in ordinary use; transposition from one key to another, and from treble to bass, or *vice versa*.

(*b*) Triads of the major and minor modes; rules of chord connection; range of voices; open and close harmony; tonality; inversions of triads; principle of doubling voices in chords.

(*c*) Rhythm, duple and triple; modes of accentuation; dynamic, metrical, and harmonical accents.

(*d*) Melody: Rules and exercises in melody writing; the scale line; the chord line; the period form; the perfect cadence; the semicadence; the plagal cadence.

(*e*) The chords of the sixth; the six-four chords; harmonizing a given melody or a given bass in four parts.

T. Th. 3-4, first term.

2. HISTORY OF MUSIC. (*a*) Primitive music and the early developments of music among Oriental peoples, the music of the

Greeks and their scales; it subsequently treats of the following subjects: Music in the service of the church, and non-ecclesiastical forms; the history and development of polyphonic forms; the Paris School, Gallo-Belgic School, the School of the Netherlands, and the Italian School.

(*b*) The development of musical instruments; the Organ and organ music; the beginning and development of Oratorio and Opera; Scarlatti and the Neapolitan School; the evolution of the Pianoforte; the German Sonata Composers to the time of Haydn; Haydn, Mozart, and Beethoven; the Orchestra and Absolute Music; the French and Italian schools of the Nineteenth Century. T. Th. 3-4, second term.

For Graduates and Undergraduates.

Hours to be arranged.

3. Advanced Harmony. Course 1 is a prerequisite for this course.

(*a*) Discords; the chord of the seventh; the resolution of a dissonance; the first class of discords; the inversions of the dominant-Seventh-Chord; irregular resolutions of the dominant-Seventh-Chord; the passive resolution; the incomplete Chord of the Dominant-Seventh; the Chord of the Ninth upon the Dominant.

(*b*) The Five-Nine and its Inversions; the incomplete Chord of the Dominant-Ninth; the Five-Nine in major and minor mode; the discords of the Second, Third, and Fourth Classes; the Altered and Mixed Chords.

(*c*) Modulations; Harmonizing of Unfigured Basses; Extraneous Modulations; Modulation in Sequences and at Cadences.

(*d*) Rules of Chromatic Progression; Enharmonic Modulation; Compound Enharmonic Changes; Melodies with Indicated, Intimated, and Optional Modulations.

(*e*) The Inharmonic Intervals; the Organ Point; Suspensions; Syncopation; Embellishments. F. 1-3, first term.

4. History of Music. Course 2 is a prerequisite. This course should be of exceptional interest, and will be in lecture-recital form. Programs will be arranged at each lecture, and the music of the best composers will be rendered by the instructor and others. The course consists of lectures on the following subjects: The Folk Song; The Art Song, including the songs of Schubert, Schumann, Franz, Brahms, Strauss, Reger, and others. Instrumental Music of this period; Verdi, and the Modern Italian School; the Modern French School of Opera. F. 1–3, second term.

5. (*a*) Elementary Counterpoint.

(*b*) Harmonic Analysis.

(*c*) Lessons in Music Form; Song Writing and Composition. Two hours a week, first term.

6. Modern Musical Composition. The course consists of lectures on the following subjects: Oratorio; the Symphonic Poem in Germany; Richard Wagner's Music Dramas; Schubert, Weber, Mendelssohn, Schumann, Chopin, Liszt; German Opera since Wagner; Debussy; the Russian School; Music in England and America. Two hours a week, second term.

Arrangements can be made with the head of the Department for lessons in singing and on the piano.

DEPARTMENT OF ART.

Miss Edna Dolfinger.

Hours to be arranged.

1. Course in Composition in Design. Principles upon which good design is composed—beginning with line work to show how the line is the foundation of all design, and branching to more complex patterns. The uses of design in compositions in portraits and landscapes will be explained at different stages. These examples are works of eminent artists, for the purpose of art appreciation.

No laboratory fee. Student will furnish his own material.

The class will be limited in numbers.

DEPARTMENT OF PUBLIC LECTURES.

During the past year this course consisted of a seminary by Dean Patterson on "The Origins of Drama," and also of lectures on different topics by Mr. Madison Cawein and Professor Morley A. Caldwell.

Students enrolled, 1911-12

ACADEMIC DEPARTMENT

Allen, James A.
Allen, Mrs. Mary.
Anderson, Chas. W.
Anderson, Ione.
Armstrong, John Wm.
Baker, B. W.
Bass, Emily F.
Beaston, Thomas.
Beck, Martin A.
Best, Effie.
Biggers, George C.
Blom, Brigitta.
Bottomly, Mary Albert.
Brigman, B. M.
Brown, Harriet Louise.
Brown, Rodney F.
Browne, Mrs. Josephine.
Bruce, Elizabeth.
Budwell, Eleanor Marie.
Bullitt, Clara K.
Caldwell, C. N.
Caldwell, D. C.
Caldwell, E. N.
Caldwell, John P.
Carr, Anne E.
Cassilly, Louise.
Catlin, Olive B.
Clark, Lois.
Collins, Sarah A.
Connor, Sallie.
Cornell, Hazel M.
Craft, W. W.
Daniel, Gilbert Joseph.
Daniel, Roy P.
Daugherty, R. E.
Davis, J. E.
Dembitz, Annette.
De Nasseau, A. L.
Der Hulst, Anthony.
De Sales, Sister.
Dixon, F. W.
Dorsey, Adele.
Dustin, Andrew P.
Eager, Louise D.
Easterbrook, George H.
Eisenman, Lula Lewis.
Eschrich, J. L.
Fairchild, S. Ray.
Foster, Owen C.
Fowler, Mary Kathleen.
Frank, Olive.
Frazee, Ewing.
Gamble, Ruth.
Gosnell, Reea Ilma.
Gough, F. Elviere.
Gray, Kenneth L.
Gunterman, Bertha.
Gunterman, Peter.
Hancock, Ada.
Harralson, J. H.
Harrington, Ruth.
Harvey, Joseph L.
Hayes, Emmett R.
Hedden, Daisy.
Heffernan, Viola M.
Heft, Hattie L.
Heft, Raymond.
Heinz, Adeline.
Hendry, Edna B.
Hewitt, Mrs. Leonard.
Hicks, J. H.
Hilley, Hans McIntire.
Hines, Katherine F.
Hobby, Virgil M.
Hochstrasser, Helen.
Hoeffle, Jessie.
Holbrook, W. F.
Hoover, Iola.
Horner, Mrs. E. B.
Hoskins, Bessie.
Huber, Grace B.
Jamison, W. L.
Jefferson, Carlyle.
Jenks, Clarence E.
Johnston, Leonora.
Johnston, Robert L.
Joiner, Eugene H.
Jones, Jeanette.
Jones, Magdalene.
Jones, Mary Ellis.
Jorgenson, E. L.
Jorgenson, Peter.
Justice, J. I.
Kahlert, Florence.
Kaufman, Sonia.
Kelso, R.
Kiser, A. E.
Knighton, Hadley B.
Kornfeld, Katherine.
Kranz, Selma.
Lampton, C. S.
Lawrence, M. M.
Lee, Alex Ying.
Lenz, Henry W.
Levy, Marion H.
Lockhart, Pearl L.
Lykins, Esther.
Madlung, Edith B.

Manzer, Tilden T.
Maradeix, Jeanne.
Maratta, Carolyn.
Maratta, Sue.
Marcus, Samuel M.
Marshall, Ella Moore.
Marshall, Floyd.
Marshall, Sallie Ewing.
Martin, J. G.
Maryosip, M.
Mayer, Frances B.
MacArthur, Frieda E.
McCaleb, Lois.
McClure, Mary E.
McConathy, Elizabeth.
MacCraken, Frances Louise.
McCulloch, Margaret W.
McDermott, Edith.
McDonald, C. H.
McGregor, Harold H.
Meloy, Hazel F.
Meriwether, Ben M.
Mitchell, Perry L.
Monaco, Salvator R.
Montgomery, Katherine.
Moore, Lucile Campbell.
Moell, Mary.
Morris, Frank Dewhurst.
Morris, James H.
Mundy, Jessie Childs.
Murphy, Cornelia Clay.
Murphy, Ethel Allen.
Murphy, Virginia.
Nave, Madge E.
Neidhamer, Claude B.
Nelson, O. A.
Nesland, Fred L.
Norwood, G. Hunter.
Nugent, R. C.
O'Connor, M. E.
Paxson, S. E.
Pegram, Robert M.
Pelle Dorothy.
Perry, Rose.
Pierle, Nettie B.
Plummer, Helen.
Posey, E. L.
Preston, Edwin E.
Rece, Annie E.
Rigdon, August.
Rigdon, Clyde A.
Roach, Mrs. Ethric (Henrietta Helm).
Robertson, Elmer.
Rose, Sister Mary.
Rutherford, H. N.
Ryan, Anna C.
Sanders, Myra.
Sasson, Andrew N.
Schultz, Emil A.
Scott, Mattie B.
Shanks, Augustus.
Shelley, Mary Louise.
Sigler, Catharine.
Smith, Edwin D.
Smith, Mary Pressley.
Snyder, Martha C.
Spaulding, Albert J.
Speed, Jack.
Stark, Edith.
Stein, Pauline K.
Stewart, Thomas W.
Stork, Harvey.
Tafel, Paula Luise.
Taylor, Josephine N.
Taylor, Margaret E.
Tehan, Katie A.
Terry, Ruth E.
Thompson, Eleanor K.
Thompson, Ira Asa.
Thompson, Mrs. Mary Marr.
Turley, V. T.
Varjo, John Ilmar.
Voigt, Charles F.
Walker, Stanley.
Waller, Wilhelmina C.
Warder, Sarah Cord.
Warner, Ruth Fox.
Warren, Henrietta C.
Weygold, Frieda.
White, James A.
Wigginton, May Wood.
Will, Emma C.
Winkler, Margaret L.
Winter, Karl D.
Young, Annie M.

Total----------203

DEPARTMENT OF MUSIC

Abraham, Louise.
Armistead, West Humphreys.
Bacon, Ethel Swann.
Bacon, Maria.
Bailey, Anne.
Brown, Irene Marie.
Coleman, E. J.
Clotfelter, J.
Dosker, Gertrude Elizabeth.
Dougherty, Chrestine.
Downing, Amelia Kendrick.
Gilmore, Mrs. T. A.
Gosnell, Reea Ilma.
Gough, Elviere.
Haddad, Lillie.
Hutchings, Mrs. Will.
Jones, Mary Ellis.
Kincheloe, Marie.
Klein, Mrs. J. W.
Lutz, Ferd L.
Mac Intyre, Catharine.
Maradeix, Jeanne.
McGann, E. C.
Mitchell, Dr. Noble F.
Mitchell, Ruth.
Ouerbacker, Mildred.
Rice, J. J.
Ross, Capitola.
Russell, Jane.
Shouse, Lorraine.
Sigler, Catharine.
Sprague, Ruth.
Stevens, E. C.
Stone, Mrs. J. M.
Taylor, W. C.
Watson, J. F.
Weller, Corinne.
Wells, Evelyn.
White, Mae.

Total	39
Academic Department	203
	242
Less names appearing twice	5
Sum total	237

Alumni

1907—1908

Bachelors.

Baird, Louise.
Brigman, B. M.
Catlin, Olive.
Chamberlin, Kate.
Cone, Vera.
Poulson, Edward T.
Simpson, Virgil.
Slifer, A. C.
Ward, Helen Shippen.
Werness, Inga.
Witherspoon, Florence P.

Masters.

Campbell, Marion.
Frazee, Geo. B.
Green, Alice L.
Hill, Lewis.
Hill, Ralph.
Kennedy, Grace A.
Thwing, F. F.

1908—1909

Bachelors.

Gross, Fannie S.
Johnston, Elizabeth Rhodes.
Knighton, Hadley B.
McConathy, Elizabeth.
Scott, Mattie Belle.
Voegtle, Anna.

Masters.

Catlin, Olive B.
Poulson, Edw. T.
Ward, Helen S.
Werness, Inga.

1909—1910

Bachelors.

Buchanan, Elizabeth Mildred.
Callaway, Eleanor Hunt Wickliffe.
Logan, Anna Lillian.
McDonald, Charles Howard.
Murphy, Ethel Allen.
Taylor, Josephine Newman.
Van Arsdale, Mary Elizabeth.
Yunker, Emilie.

Masters.

Frost, Minnie Carfield.
Knighton, Hadley Blanch.

1910—1911

Bachelors.

Hodges, Helen McClure.
Hedden, Daisy.
King, Julia C.
Miller, Lois M.
Moses, Elsie Nina.
Smith, Mary Pressley.
Spillman, Ora Dell.
Thornberry, J. E.
Winkler, Gertrude M.
Winkler, Margaret L.

Masters.

Murphy, Ethel Allen.
Yunker, Emilie.

Graduating Class

1911—1912

BACHELORS.

Daniel, Gilbert J.
Dustin, Andrew P.
Heffernan, Viola Marie.
Heft, Hattie L.
Heinz, Adeline.
Jenks, Clarence E.
Terry, Ruth Eagleton.

MASTERS.

Brigman, Bennett Mattingly.
Lee, Alexander Y.
Lenz, Henry William.
McGregor, Harold Hossack.
Smith, Mary Pressley.

UNIVERSITY OF ILLINOIS
PRESIDENT'S OFFICE

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